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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,985	09/25/2003	Jaime L. Rugnetta	279.607US1	4509
21186	7590	01/27/2006		
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			EXAMINER KRAMER, NICOLE R	
			ART UNIT 3762	PAPER NUMBER

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/670,985	RUGNETTA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nicole R. Kramer	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/23/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 (and 9-14 depending therefrom) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation " the at least one first recessed portion longitudinally disposed between the tine coupling portion and the at least one second recessed portion" at lines 16-17. There is insufficient antecedent basis for the limitations "the at least one first *recessed* portion" (emphasis added) and "the at least one second *recessed* portion" (emphasis added) in the claim. It is unclear whether or not claim 8 requires the first and second portions to be recessed. Appropriate correction is required.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation " the tine interface portion" at line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether or not claim 4 is referring to the "tine interface section" of claim 1, or the "tine coupling portion" of claim 1. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

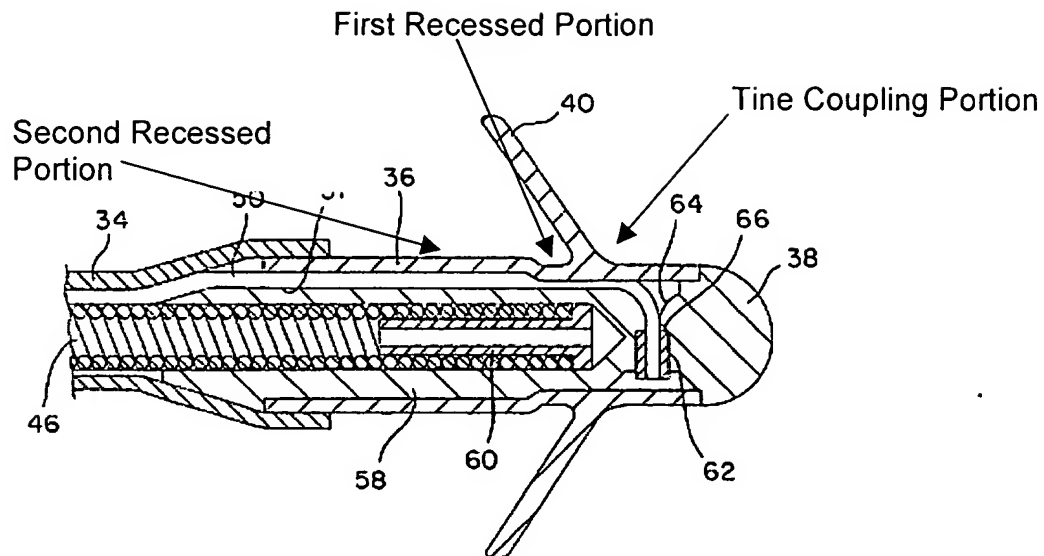
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-4, 6-10, 12, 14-16, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,289,251 ("Huepenbecker et al.").

Huepenbecker et al. discloses a lead having at least one tine (40) coupled at the distal end thereof. The tines have a first position extended away from the lead body (as shown in Figure 4 reproduced below). In addition, although not explicitly stated, the tines necessarily have a second collapsed position because the tines are formed of a flexible material such that the tines fold/collapse against the lead body during insertion into the patient. The lead includes two recessed portions, as indicated on Fig. 4 reproduced below. The first recessed portion is longitudinally disposed between the tine coupling portion and the second recessed portion, as shown below. In addition, when the tines collapse during implantation, the first recessed portion would necessarily be recessed away from the bottom surface of the tine.



With respect to claims 3, 9, and 19-20, the cross-sectional area of the first recessed portion is smaller than the cross-sectional area of the second recessed portion.

With respect to claim 4, it appears from Figure 4 that the cross-sectional area at the lead distal end (between electrode 38 and the tine- coupling portion) is approximately the same as the cross-sectional area of the tine coupling portion. Accordingly, the cross-sectional area of the tine coupling area is necessarily "less than 10% smaller" than the cross-sectional area of the lead distal end.

With respect to claim 6, the length of the first recessed portion is less than the tine length.

With respect to claim 7, Examiner considers spacer 34 shown on Figure 4 to be an "intermediate portion of the lead body." As shown in Fig. 4, the diameters of the spacer 34, the first recessed portion, and the second recessed portion are each different from one another.

With respect to claim 8, the cross-sectional area of the first recessed portion is smaller than the cross-sectional area of the second recessed portion. As such, Examiner considers the first cross-sectional shape to be different from the second cross-sectional shape. In the alternative, Examiner notes that the 103 rejection below for claims 17-18 relate to modifying the first and/or second recessed areas to be non-circular (thus resulting in the first cross-sectional shape being different from the second cross-sectional shape).

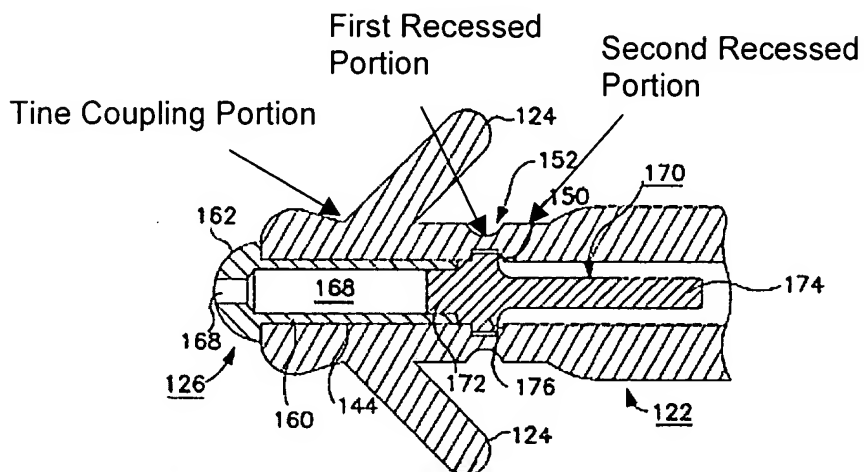
With respect to claim 15, the lead disclosed in Huepenbecker et al. is necessarily formed by the method of claim 15.

6. Claims 1, 3-4, 6-10, 12, 14-16, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,807,399 ("Laske et al.").

Laske et al. discloses a lead having at least one tine (124) coupled at the distal end thereof. The tines have a first position extended away from the lead body (as shown in Figure 5 reproduced below). In addition, although not explicitly stated, the tines necessarily have a second collapsed position because the tines are formed of a soft, pliant material such that the tines fold/collapse against the lead body during insertion into the patient (see col. 5, lines 23-37). The lead includes two recessed portions, as indicated on Fig. 5 reproduced below. The first recessed portion is longitudinally disposed between the tine coupling portion and the second recessed portion, as shown below. In addition, when the tines collapse during implantation, the

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first recessed portion would necessarily be recessed away from the bottom surface of the tine.

**FIG. 5**

With respect to claims 3, 9, and 19-20, the cross-sectional area of the first recessed portion is smaller than the cross-sectional area of the second recessed portion.

With respect to claim 4, it appears from Figure 5 that the cross-sectional area at the lead distal end is slightly larger than the cross-sectional area of the tine coupling portion. Examiner considers the cross-sectional area of the tine coupling area to be approximately "less than 10% smaller" than the cross-sectional area of the lead distal end.

With respect to claim 6, the length of the first recessed portion is less than the tine length.

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With respect to claim 7, Examiner considers tubular sheath 122 shown on Figure 5 to be an "intermediate portion of the lead body." As shown in Fig. 5, the diameters of the sheath 122, the first recessed portion, and the second recessed portion are each different from one another.

With respect to claim 8, the cross-sectional area of the first recessed portion is smaller than the cross-sectional area of the second recessed portion. As such, Examiner considers the first cross-sectional shape to be different from the second cross-sectional shape. In the alternative, Examiner notes that the 103 rejection below for claims 17-18 relate to modifying the first and/or second recessed areas to be non-circular (thus resulting in the first cross-sectional shape being different from the second cross-sectional shape).

With respect to claim 15, the lead disclosed in Laske et al. is necessarily formed by the method of claim 15.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 5, 11, 13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,289,251 ("Huepenbecker et al.") in view of U.S. Patent No. 5,531,781 ("Alferness et al.").



As discussed above, Huepenbecker et al. discloses a lead having two recessed portions at the tine interface section of the lead body. Huepenbecker et al. fails to disclose that the recessed portions extend only a portion around the perimeter of the lead body. Although not explicitly stated, it is well known in the art to utilize a space such as the recessed portions for receiving flexible tines during implantation, thereby minimizing the cross-section of the lead at the tine interface area during implantation. For example, Alferness et al. teaches a variety of embodiments in which a plurality of tines are received in a space or spaces formed within the lead body (see Figs. 6, 8, and 10 and corresponding text at col. 6, line 8 - col. 7, line 20). Such recesses are only required at the area in which the tines contact the lead body (see Figs. 8 and 10 and associated text). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the first and/or second recessed portions of Huepenbecker et al. such that recesses are created only at the area in which the tines contact the lead body as taught by Alferness et al. in order to ensure that lead body is sufficiently strong during implantation.

With respect to claim 5, Huepenbecker et al. fails to disclose that the lead body has a first transverse dimension and a second transverse dimension each at a longitudinal location along the first recessed portion, and the first transverse dimension is greater than the second transverse dimension. Modifying the first recessed portion of Huepenbecker et al. such that recesses are created only at the area in which the tines contact the lead body as taught by Alferness et al., as described above, necessarily

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results in a lead body having a first transverse dimension which is greater than a second transverse dimension (see Figs. 8 and 10 of Alferness et al.).

With respect to claims 17-18, Huepenbecker et al. fails to disclose that forming the recessed portions includes forming non-circular cross-sections at the tine interface portion. Modifying the first and/or second recessed portions of Huepenbecker et al. such that recesses are created only at the area in which the tines contact the lead body as taught by Alferness et al., as described above, necessarily results in creating non-circular cross-sections.

9. Claims 2, 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,807,399 ("Laske et al.").

As discussed above, Laske et al. discloses a lead having two recessed portions at the tine interface section of the lead body. Laske et al. fails to disclose that the first recessed portion extends only a portion around the perimeter of the lead body. The first recessed portion (external groove 152) defines a zone in which the sheath 122 may be readily separated (see col. 7, lines 15-50). Laske et al. utilizes the first recessed portion to create a weakened area in the sheath 122. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the external groove 152 of Laske et al. such that it only extends around a portion of the perimeter of the lead body (so long as the sheath 122 may be readily separated when force is applied thereto) in order to ensure that sheath 122 is sufficiently strong during implantation.

With respect to claim 5, Laske et al. fails to disclose that the lead body has a first transverse dimension and a second transverse dimension each at a longitudinal location along the first recessed portion, and the first transverse dimension is greater than the second transverse dimension. Modifying the external groove 152 of Laske et al. such that it only extends around a portion of the perimeter of the lead body, as described above, necessarily results in a lead body having a first transverse dimension which is greater than a second transverse dimension.

With respect to claim 17, Laske et al. fails to disclose that forming the first recessed portion includes forming a non-circular cross-section at the tine interface portion. Modifying the external groove 152 of Laske et al. such that it only extends around a portion of the perimeter of the lead body, as described above, necessarily results in creating a non-circular cross section.

10. Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,807,399 ("Laske et al.") in view of U.S. Patent No. 5,531,781 ("Alferness et al.").

As discussed above, Laske et al. discloses a lead having two recessed portions at the tine interface section of the lead body. Laske et al. fails to disclose that the second recessed portion extends only a portion around the perimeter of the lead body. Although not explicitly stated, it is well known in the art to utilize a space such as the second recessed portion for receiving flexible tines during implantation, thereby minimizing the cross-section of the lead at the tine interface area during implantation.

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For example, Alferness et al. teaches a variety of embodiments in which a plurality of tines are received in a space or spaces formed within the lead body (see Figs. 6, 8, and 10 and associated text). Such recesses are only required at the area in which the tines contact the lead body (see Figs. 8 and 10 and associated text). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the second recessed portion of Laske et al. such that the recess is created only at the area in which the tines contact the lead body as taught by Alferness et al. in order to ensure that sheath 122 is sufficiently strong during implantation.

With respect to claim 18, Laske et al. fails to disclose that forming the second recessed portion includes forming a non-circular cross-section at the tine interface portion. Modifying the second recessed portion of Laske et al. such that the recess is created only at the area in which the tines contact the lead body as taught by Alferness et al., as described above, necessarily results in creating a non-circular cross-section.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 4,409,994 (which correspond to GB 2099307 cited in applicant's IDS) teaches a lead having a recessed portion (31) to receive tines 33 and 35.

U.S. Patent No. 5,571,157 teaches a lead having a small diameter recess (48) for receiving tines 30 (see Figure 1 and associated text at col. 5, lines 1-10).

U.S. Patent No. 5,645,580 teaches a lead having a recess (88) for receiving tines 84 (see Figure 3 and associated text at col. 6, lines 28-55).

U.S. Patent No. 6,006,139 discloses a lead having a distal end 104 (see, for example, Figure 15), which includes tines and two recessed portions at the tine interface portion.

U.S. Patent Application Publication 2004/0034401 teaches a lead fixation arrangement in which a plurality of tines each have their own corresponding elongated recess for receiving the tine body (see paragraph 0028).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole R. Kramer whose telephone number is 571-272-8792. The examiner can normally be reached on Monday through Friday, 8 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NRK

1/19/06

  
George Manuel  
Primary Examiner